

- 14 -

CLAIMS

- sub
A1
1. Support material coated on at least one side with a synthetic resin, containing a raw paper provided at least on the front side with a pigment coating, wherein the pigment coating contains at least about 5 % by weight of a pigment with a narrow grain distribution, whereby at least about 70 % of these pigment particles feature a size of less than about 1 μm and at least 40 % by weight of these particles feature a grain size of 0.35 to 0.8 μm .
- sub
C1
2. Support material according to claim 1, wherein the pigment is a calcium carbonate.
3. Support material according to claim 1, wherein the coating contains a pigment mixture which contains at least about 30 % by weight kaolin.
4. Support material according to claim 1, wherein the application weight of the coating amounts to a maximum of about 20 g/m^2 .
5. Support material according to claim 1, wherein the raw paper is a slightly compressed paper with a density of less than about 1 g/cm^3 .
- sub
C6
6. Support material coated on at least one side with synthetic resin, containing a raw paper provided on at least the front side with a pigment coating, wherein the pigment coating contains a structured calcium carbonate.

- 15 -

- a 7. Support material according to claim 6, wherein the calcium carbonate ^{has} is a surface modified by an inorganic substance in platelet shape.

- Sub B
C1 8. Support material according to claim 6, wherein the proportion of the pigment in the total amount of pigment amounts to at least about 5 % by weight.

9. Support material according to claim 7, wherein the proportion of the pigment in the total amount of pigment amounts to at least about 5 % by weight.

- Sub
G1 10. Support material according to claim 6, wherein the pigment coating contains a pigment mixture which contains at least about 30 % by weight of clay.

11. Support material according to claim 8, wherein the application weight of the coating amounts to a maximum of about 20 g/m².

- Pat
H2 12. Process for the manufacture of a support material coated on at least one side with a synthetic resin, containing a raw paper provided at least on the front side with a pigment coating, wherein the coating containing at least one pigment is applied on the front side of a raw paper, and the pigment features a narrow grain size distribution, that the pigment coating contains at least about 5 % by weight of a pigment with a narrow grain distribution, whereby at least about 70 % of these pigment particles feature a size of less than about 1 μ m, and at least 40 % by weight of these particles feature a grain size of 0.35 and 0.8 μ m, and a resin is applied on the side of the raw paper coated with the pigment, by extrusion, at a speed of up to 600 m/min.

- 16 -

13. Process according to claim 11, wherein the resin is extruded onto the pigment coating of the raw paper at a speed of 350 to 600 m/min.
14. Process according to claim 11, wherein the coating of the raw paper is applied in two stages in such a way that first a preliminary layer containing pigment is first applied with an application weight of up to about 20 g/m² onto the raw paper, and then a coating containing a pigment with a narrow grain size distribution is applied, in which about 50 % of the pigment particles feature a diameter of 0.7 µm.
15. Support material for an ink-jet recording sheet comprising a raw paper provided at least on the front side with a pigment coating, wherein the pigment coating contains at least about 5 % by weight of a pigment with a narrow grain distribution, whereby at least about 70 % of these pigment particles feature a size of less than about 1 µm and at least 40 % by weight of these particles feature a grain size of 0.35 to 0.8 µm.
16. Support material according to claim 14, wherein the pigment is a calcium carbonate.
17. Support material according to claim 14, wherein the coating contains a pigment mixture which contains at least about 30 % by weight kaolin.
18. Support material according to claim 14, wherein the application weight of the coating amounts to a maximum of about 20 g/m².

17 -

- ¹⁹
18. Support material according to claim 14, wherein the calcium carbonate ^{has} is a structured calcium carbonate.

- ²⁰
19. Support material according to claim 14, wherein the calcium carbonate is a surface modified by an inorganic substance in platelet shape.

sub
DI
ADD
C9